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EXAMINER	
SHEPARD, JUSTIN E	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/909,224	LU ET AL.	
	Examiner	Art Unit	
	Justin E. Shepard	2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-21,28-39,61-69,79-90,92-94,99,100 and 102* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-21,28-39,61-69,79-90,92-94,99,100 and 102* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 6/28/07 have been fully considered but they are not persuasive.

Page 4, paragraph beginning with "This exact":

The applicant argues that Houston cannot be used to reject the claim for the same reasons that Aras couldn't be used in a previous rejection. Specifically they state that the USPTO has found that there is no reason that Houston would use PIDs instead of the generic program identifiers disclosed in their specification. While the applicant had evidence of this in the last action (as it applied to Aras), they simply state that the evidence also applies to Houston, which the examiner does not agree with. In later responses the examiner will show that the combination of Houston and Ozkan is valid.

Page 6, last paragraph continuing to page 7:

The applicant argues that the first motivation used for the combination of Houston and Ozkan is not valid. Specifically they point to a section in Houston (column 4, lines 40-44) to show that Houston already uses "Standardized program identifiers." The cited portion discloses using unique id tags, but does not refer to using standardized program ids. Therefore using the PID standard would provide for a unique tag as disclosed by Houston.

Page 7, last paragraph continuing to page 8:

The applicant argues that the second motivation used for the combination of Houston and Ozkan is not valid. Specifically they argue that Houston is not a tuning device. As seen in figure 8, the log entry database shows HDTV signals being received from CBS (a television broadcaster), and therefore Houston discloses tuning to a television program. Therefore it Houston is a tuning device, and it would make sense to add the PIDs to enable Houston to tune to sub-channels.

Page 9, paragraph starting with "The Office action":

The applicant argues that there is no external reader found in Ozkan, therefore there would be no reason to add a firewire bus to the device. In figure 1 (part 90) Ozkan storage device that is not eternal to the system for storing MPEG2 streams, this storage device would also store the PID headers to identify the MPEG2 streams. Therefore it would make sense to add the firewire bus, as you could use one STB to be a common storage device for 2 separate STBs.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 13-15, 17, 18, 20, 21, 33-37, 61, 79, 88, and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Ozkan.

Referring to claim 13, Houston discloses a digital television audience measurement system for television equipment, wherein the digital television equipment is disposed in a statistically selected location (column 8, lines 13-20; column 14, lines 43; column 2, lines 8-12), the television audience measurement system comprising:

a software agent adapted to read a program identification from a data packet containing a portion of a tuned digital television program to identify the television program tuned by the digital television equipment (figure 4, parts 410, 420, 430, and 1500; figure 8; column 16, lines 47-52), wherein the software agent is stored in memory associated with the digital television equipment and wherein the software agent stores at least a portion of the program identifier in association with a timestamp (figure 8; column 16, lines 64-67); and

a communication apparatus adapted to transmit at least one of the at least the portion of the program identifier and media identification information obtained via the program identifier to a remotely located central office (figure 1; column 8, lines 13-32).

Houston does not disclose a system wherein the program identification is located within a PID header; and wherein the PID header is broadcast with the data packet to enable the digital equipment to tune to a selected one of a plurality of minor channels broadcast in a major channel.

In an analogous art, Ozkan teaches a system wherein the program identification is located within a PID header (column 5, lines 8-17); and wherein the PID header is broadcast with the data packet to enable the digital equipment to tune to a selected one of a plurality of minor channels broadcast in a major channel (column 7, lines 47-54).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the PID headers taught by Ozkan in the system disclosed by Houston. The first motivation would have been that using a standardized program identifier, such as a PID header, would have given the system better interoperability with existing systems, which would be an advantage as Houston deals with the sharing of viewing records. The second motivation would have been that using the PID header enables the system to tune to sub-channels without acquiring the program map table (PMT) (Ozkan: column 7, lines 47-54).

Referring to claim 14, Houston discloses a television audience measurement system of claim 13 wherein the digital television equipment comprises a receiver having a tuner (column 14, line 43), a microprocessor (figure 4, part 410), memory (figure 4, parts 420 and 430), and a video display unit (column 14, lines 53-54).

Ozkan and Houston do not disclose a system with an operating system.

The examiner takes Official Notice that it is notoriously well known in the art for a consumer electronic device to use an operating system to control the overall functions of the device.

At the time of the invention it would have been obvious for one of ordinary skill in the art to add an operating system to the system disclosed by Houston and Ozkan. The motivation would have been to enable the system to be updated by upgrading the OS, thereby adding new features or fixing bugs, which would make the system more enticing to consumers.

Referring to claim 15, Houston does not disclose a television audience measurement system of claim 13, wherein the digital television equipment is a set top box providing an analog television signal to an analog receiver.

In an analogous art, Ozkan teaches a television audience measurement system of claim 13 wherein the digital television equipment is a set top box providing an analog television signal to an analog receiver (figure 1, part 45).

At the time of the invention it would have been obvious for one of ordinary skill in the art to enable the a STB to provide analog television signals to an analog receiver. The motivation would have been to enable backwards compatibility with older television sets.

Referring to claim 17, Houston discloses a television audience measurement system of claim 13 wherein the digital television equipment comprises a set top box (column 14, lines 43) and a monitor (column 14, lines 53-54).

Referring to claim 18, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the digital television equipment comprises a personal computer provided with a television receiver.

The examiner takes Official Notice that it is notoriously well known in the art to use a computer as a television receiver as most current set top boxes contain the components of a simple computer.

At the time of the invention it would have been obvious for one of ordinary skill in the art to use a computer as a television receiver in the system disclosed by Houston and Ozkan. The motivation would have been that Houston discloses the alternative wherein the system is a computer network (column 8, lines 21-32).

Referring to claim 20, Houston discloses a television audience measurement system of claim 13 wherein the digital television equipment includes a DVD player (column 14, lines 55-56).

Referring to claim 21, Houston and Ozkan do not disclose a television audience measurement system of claim 13 further comprising a person identification apparatus.

The examiner takes Official Notice that it is notoriously well known in the art to identify users of a television viewing preference device.

At the time of the invention it would have been obvious for one of ordinary skill in the art to add a personal identification method to the system disclosed by Houston and Ozkan. The motivation would have been to enable the company tracking the viewing to keep more accurate records in regards to sex, race, age, etc. and therefore make the data more enticing to advertisers.

Referring to claim 33, Houston discloses a television audience measurement system of claim 13 wherein the communication apparatus is arranged to send the PID header to an Internet service provider via the Internet (figure 1; column 8, lines 21-32).

Referring to claim 34, Houston discloses a television audience measurement system of claim 13 wherein the communication apparatus includes an intermediate data collector (figure 1; figure 2; column 8, lines 21-32).

Referring to claim 35, Houston discloses a television audience measurement system of claim 34 wherein the intermediate data collector includes a store and forward device, and wherein the store and forward device is arranged to send the PID header to the central office via a telephone line (figure 1; figure 2; column 8, lines 21-32).

Referring to claim 36, Houston discloses a television audience measurement system of claim 34 wherein the intermediate data collector is an Internet service provider (figure 1; figure 2; column 8, lines 21-32).

Referring to claim 37, Ozkan and Houston do not disclose a television audience measurement system of claim 34 wherein the intermediate data collector is a data collection facility located in the central office (figure 1; figure 2; column 8, lines 21-32).

Referring to claim 61, Houston discloses a software agent stored in memory associated with digital television equipment, wherein the software agent is arranged to acquire television audience measurement data relative to the digital television

equipment (column 8, lines 13-20; column 14, line 43; column 2, lines 8-12), the software agent comprising:

first instructions to store and timestamp at least a portion of a television program identification from a data packet containing a portion of a tuned television program to identify the television program selected for viewing on the digital television equipment (figure 8; column 14, lines 47-52 and 64-67);

second instructions to log a co-transmitted datum transmitted in a same major channel as the television program selected for viewing on the digital television equipment, the co-transmitted datum being related to the tuned television program (figure 8); and

third instructions to log an Internet identification datum associated with an Internet task of the digital television equipment (figure 8).

Houston does not disclose a system wherein the program identification is located within a PID header.

In an analogous art, Ozkan teaches a system wherein the program identification is located within a PID header (column 5, lines 8-17).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the PID headers taught by Ozkan in the system disclosed by Houston. The first motivation would have been that using a standardized program identifier, such as a PID header, would have given the system better interoperability with existing systems, which would be an advantage as Houston deals with the sharing of viewing records. The second motivation would have been that using the PID header enables

the system to tune to sub-channels without acquiring the program map table (PMT) (Ozkan: column 7, lines 47-54).

Claim 79 is rejected on the same grounds as claim 61.

Referring to claim 88, Houston discloses a television audience measurement system of claim 13 wherein the communication apparatus transmits the PIO headers with the time stamps to the remotely located central office to facilitate compilation of audience measurement data (figure 8; column 8, lines 13-20).

Referring claim 92, Houston discloses a software agent of claim 61 wherein the digital television equipment includes an output port to export at least one of the time stamped PID header, the co-transmitted datum, or the Internet identification datum (column 8, lines 13-20).

2. Claims 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Ozkan as applied to claim 13 above, and further in view of Lotspiech.

Referring to claim 16, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the digital television equipment comprises a set top box providing a digital television signal to a digital receiver.

In an analogous art, Lotspiech teaches a television audience measurement system of claim 13 wherein the digital television equipment comprises a set top box providing a digital television signal to a digital receiver (column 4, lines 53-59; figure 1).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the digital television signal transmission taught by Lotspiech to the system disclosed by Houston and Ozkan. The motivation would have been to leave the signal in its digital form as long as possible to lower the signal loss equated with analog signal transmission.

Referring to claim 19, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the digital television equipment includes a VCR.

In an analogous art, Lotspiech teaches a television audience measurement system of claim 13 wherein the digital television equipment includes a VCR (column 4, lines 53-59; figure 1).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the digital VCR taught by Lotspiech to the system disclosed by Houston and Ozkan. The motivation would have been to leave the signal in its digital form as long as possible to lower the signal loss equated with analog signal transmission.

3. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Ozkan as applied to claim 13 above, and further in view of Gerace.

Referring to claim 28, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the software agent is arranged to detect window activities conducted by an audience.

In an analogous art, Gerace teaches a television audience measurement system of claim 13 wherein the software agent is arranged to detect window activities conducted by an audience (column 5, lines 8-14; figure 3F).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the menu tracking taught by Gerace to the system disclosed by Houston and Ozkan. The motivation would have been to capture more detailed information (programs the user viewed the details of) to provide a better collection of data to sell to the advertisers.

4. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Ozkan as applied to claim 13 above, and further in view of Ciciora.

Referring to claim 29, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the communication apparatus includes a serial port.

In an analogous art, Ciciora teaches a television audience measurement system of claim 13 wherein the communication apparatus includes a serial port (column 4, lines 59-61).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the serial connection taught by Ciciora to the system disclosed by Houston and Ozkan. The motivation would have been to use a known transmission standard to keep manufacturing costs down.

Referring to claim 30, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the communication apparatus includes a parallel port.

In an analogous art, Ciciora teaches a television audience measurement system of claim 13 wherein the communication apparatus includes a parallel port (column 4, lines 59-61).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the parallel connection taught by Ciciora to the system disclosed by Houston and Ozkan. The motivation would have been to use a known transmission standard to keep manufacturing costs down.

5. Claim 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Ozkan as applied to claim 13 above, and further in view of Williams.

Referring to claim 31, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the communication apparatus includes a USB port.

In an analogous art, Williams teaches a television audience measurement system of claim 13 wherein the communication apparatus includes a USB port (column 6, lines 27-32).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the USB connection taught by Williams to the system disclosed by Houston and Ozkan. The motivation would have been to use a known transmission standard to keep manufacturing costs down.

Referring to claim 32, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the communication apparatus includes a firewire port.

In an analogous art, Williams teaches a television audience measurement system of claim 13 wherein the communication apparatus includes a firewire port (column 6, lines 27-32).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the firewire connection taught by Williams to the system disclosed by Houston and Ozkan. The motivation would have been to use a known transmission standard to keep manufacturing costs down.

6. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Ozkan as applied to claim 13 above, and further in view of Kauffman.

Referring to claim 38, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the software agent is a software agent downloaded to the memory associated with the digital television equipment.

In an analogous art, Kauffman teaches a television audience measurement system of claim 13 wherein the software agent is a software agent downloaded to the memory associated with the digital television equipment (column 7, lines 49-53).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the software updating method taught by Kauffman to the system disclosed by Houston and Ozkan. The motivation would have been to enable the system to be updated by upgrading the OS, thereby adding new features or fixing bugs, which would make the system more enticing to consumers.

Referring to claim 39, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the software agent is a plug in software agent of the digital television equipment.

In an analogous art, Kauffman teaches a television audience measurement system of claim 13 wherein the software agent is a software agent downloaded to the memory associated with the digital television equipment (column 7, lines 49-53).

The examiner takes Official Notice that it is notoriously well known in the art to update software with plug ins.

At the time of the invention it would have been obvious for one of ordinary skill in the art to use a plug in method taught to the system disclosed by Houston and Ozkan.

The motivation would have been to enable the system to be updated by upgrading the OS, thereby adding new features or fixing bugs, which would make the system more enticing to consumers.

7. Claims 93 and 99 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Ozkan as applied to claims 92 and 79 above, and further in view of Saito.

Referring to claim 93, Houston and Ozkan do not disclose a software agent of claim 92 wherein the output port outputs data in accordance with the IEEE 1394 protocol.

In an analogous art, Saito teaches a software agent of claim 92 wherein the output port outputs data in accordance with the IEEE 1394 protocol (figure 58, lines 7003 and 7005).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the firewire protocol to communicate upstream, as taught by Saito, in the system disclosed by Houston and Ozkan. The motivation would have been to enable multiple units to connect up to a single modem for upstream communication.

Claim 99 is rejected on the same grounds as claims 92 and 93.

8. Claim 62, 64, 66, 68, 80, 82, 84, 86, 94, 100, and 102 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Saito.

Referring to claim 62, Ozkan discloses an apparatus for identifying a viewer selected television program from among a plurality of time overlapped television programs broadcast in a viewer selected broadcast channel and received by digital television program reception equipment (figure 8; column 8, lines 13-20), the apparatus comprising:

a reader connected to the data port to read program identifying data tuned by the digital television program reception equipment from among data exported from the digital television program reception equipment via the data port (figure 1; column 8, lines 13-32); and

a memory to store storing means for storing the program identifying data (figure 1; figure 8).

Houston does not disclose an apparatus wherein the data port operates in accordance with the IEEE 1394 protocol and the program identifying data read by the reader are identifier tags exported with the data in accordance with the IEEE 1394 protocol.

In an analogous art, Saito teaches an apparatus wherein the data port operates in accordance with the IEEE 1394 protocol and the program identifying data read by the reader are identifier tags exported with the data in accordance with the IEEE 1394 protocol (figure 58, lines 7003 and 7005).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the firewire protocol to communicate upstream, as taught by Saito, in the

system disclosed by Ozkan and Houston. The motivation would have been to enable multiple units to connect up to a single modem for upstream communication.

Claim 80 is rejected on the same grounds as claim 62.

Referring to claim 64, Houston and Saito do not disclose an apparatus of claim 62 wherein the digital television program reception equipment is a personal computer.

The examiner takes Official Notice that it is notoriously well known in the art to use a computer as a television receiver as most current set top boxes contain the components of a simple computer.

At the time of the invention it would have been obvious for one of ordinary skill in the art to use a computer as a television receiver in the system disclosed by Houston and Saito. The motivation would have been that Ozkan discloses the alternative wherein the system is a computer network (column 8, lines 21-32).

Claims 68, 82, and 86 are rejected on the same grounds as claim 64.

Referring to claim 66, Houston discloses an apparatus of claim 62, further comprising: a communication device to transfer the program identifying data to a remote point (column 8, lines 13-20).

Claim 84 is rejected on the same grounds as claim 66.

Referring to claim 94, Houston discloses an apparatus of claim 62 wherein the reader time stamps the program identifying data (column 16, lines 64-67; figure 8).

Claims 100 and 102 are rejected on the same grounds as claim 94.

Claims 89 and 90 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Ozkan as applied to claim 13 above, and further in view of Saito.

Referring to claim 89, Houston and Ozkan do not disclose a television audience measurement system of claim 13 wherein the communication apparatus is an output port of the digital television equipment.

In an analogous art, Saito teaches a television audience measurement system of claim 13 wherein the communication apparatus is an output port of the digital television equipment (figure 58, lines 7003 and 7005).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the firewire protocol to communicate upstream, as taught by Saito, in the system disclosed by Ozkan and Houston. The motivation would have been to enable multiple units to connect up to a single modem for upstream communication.

Referring to claim 90, Houston and Ozkan do not disclose a television audience measurement system of claim 89 wherein the output port outputs data in accordance with the IEEE 1394 protocol.

In an analogous art, Saito teaches a television audience measurement system of claim 89 wherein the output port outputs data in accordance with the IEEE 1394 protocol (figure 58, lines 7003 and 7005).

At the time of the invention it would have been obvious for one of ordinary skill in the art to use the firewire protocol to communicate upstream, as taught by Saito, in the system disclosed by Ozkan and Houston. The motivation would have been to enable multiple units to connect up to a single modem for upstream communication.

9. Claims 65, 69, 83, and 87 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Saito as applied to claim 62 above, and further in view of Lotspiech.

Referring to claim 65, Houston and Saito do not disclose an apparatus of claim 62 wherein the digital television program reception equipment is a digital television set.

In an analogous art, Lotspiech teaches an apparatus of claim 62 wherein the digital television program reception equipment is a digital television set (column 4, lines 53-59; figure 1).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the digital television signal transmission taught by Lotspiech to the system

disclosed by Houston and Saito. The motivation would have been to leave the signal in its digital form as long as possible to lower the signal loss equated with analog signal transmission.

Claims 69, 83, and 87 are rejected on the same grounds as claim 65.

Claims 63, 67, 81, and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houston in view of Saito as applied to the claims above, and further in view of Ozkan.

Referring to claim 63, Houston and Saito do not disclose an apparatus of claim 62 wherein the digital television program reception equipment is a digital converter

In and analogous art, Ozkan teaches an apparatus of claim 62 wherein the digital television program reception equipment is a digital converter (column 2, lines 49-60).

At the time of the invention it would have been obvious for one of ordinary skill in the art to add the digital converter taught by Ozkan to the system disclosed by Houston and Saito. The motivation would have been to enable the signals to remain in the digital domain for as long as possible therefore stopping unnecessary signal loss.

Claims 67, 81, and 85 are rejected on the same grounds as claim 63.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin E. Shepard whose telephone number is (571) 272-5967. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JS

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